

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for compensating for ambient light that may reach a photodetector system of an optical sensor having indicator molecules, comprising:
 - illuminating the indicator molecules, thereby causing the indicator molecules to emit light;
 - determining the amount of light reaching the photodetector system at a point in time when the indicator molecules are illuminated, thereby determining the sum of the amount of ambient light and the light emitted from the indicator molecules reaching the photodetector;
 - ceasing illuminating the indicator molecules;
 - after ceasing illuminating the indicator molecules, determining the amount of light reaching the photodetector system, thereby determining the amount of ambient light reaching the photodetector; and
 - determining the amount of light emitted from the indicator molecules that reached the photodetector system by subtracting the second determined amount of light from the first determined amount of light.
2. (Original) The method of claim 1, further comprising transmitting signals to a sensor reader, wherein each signals contains information corresponding to an output of the photodetector system.
3. (Original) The method of claim 1, wherein the step of determining the amount of light emitted from the indicator molecules that reached the photodetector system by subtracting the second determined amount of light from the first determined amount of light is performed by an external sensor reader.

4. (Original) The method of claim 1, wherein the step of illuminating the indicator molecules comprises activating a light source.

5. (Original) The method of claim 4, wherein the step of activating the light source comprises driving the light source with about 2 milliamps of current.

6. (Original) The method of claim 1, wherein the step of determining the amount of light reaching the photodetector consists of obtaining a signal output from the photodetector system.

7. (Original) A method for compensating for ambient light that may reach a photodetector system of an optical sensor having indicator molecules, comprising:

(a) illuminating the indicator molecules;

(b) capturing a first signal output from the photodetector system, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system;

(c) after performing step (b) and while the indicator molecules are not being illuminated, capturing a second signal output from the photodetector system, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system; and

(d) generating a third signal, wherein the third signal is a function of the first and second signal.

8. (Original) The method of claim 7, further comprising transmitting the first and second signal to a sensor reader.

9. (Original) The method of claim 8, wherein the sensor reader generates the third signal.

10. (Original) The method of claim 7, wherein the step of generating the third signal comprises subtracting the second signal from the first signal.

11. (Original) The method of claim 7, wherein the step of illuminating the indicator molecules comprises activating a light source.

12. (Original) The method of claim 11, wherein the step of activating the light source comprises driving the light source with about 2 milliamps of current.

13. (Original) An optical sensor, comprising:
indicator molecules;
a photodetector;
a light source for illuminating the indicator molecules;
means for determining the amount of light reaching the photodetector at a point in time when the indicator molecules are illuminated by the light source, thereby determining the sum of the amount of ambient light and the light emitted from the indicator molecules reaching the photodetector; and
means for determining the amount of light reaching the photodetector at a point in time when the indicator molecules are not being illuminated by the light source, thereby determining the amount of ambient light reaching the photodetector.

14. (Original) The optical sensor of claim 13, further comprising means for determining the amount of light emitted from the indicator molecules that reached the photodetector.

15. (Original) The optical sensor of claim 14, wherein said means for determining the amount of light emitted from the indicator molecules that reached the photodetector comprises means for subtracting the second determined amount of light from the first determined amount of light.

16. (Original) The optical sensor of claim 13, further comprising a transmitter for transmitting a signal to a sensor reader, wherein the signal contains information about the amount of light reaching the photodetector at a point in time when the indicator molecules are illuminated by the light source.

17. (Original) The optical sensor of claim 13, further comprising means for activating the light source by driving the light source with about 2 milliamps of current.

18. (Original) The optical sensor of claim 13, wherein the means for determining the amount of light reaching the photodetector comprises means for obtaining a signal output from the photodetector.

19. (Original) The optical sensor of claim 13, further comprising a housing for housing said determining means, said photodetector and said light source.

20. (Original) The optical sensor of claim 19, wherein the indicator molecules are disposed on an outer surface of the housing.

21. (Currently Amended) An optical sensor, comprising:
indicator molecules;
a photodetector system;
a light source for illuminating the indicator molecules;
means for capturing a first signal output from the photodetector system while the indicator molecules are in a fluorescent state, wherein said first signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system; and
means for capturing a second signal output from the photodetector system while the indicator molecules are not in a fluorescent state~~being illuminated~~, wherein said second signal is a function of the intensity of the light striking a photosensitive surface or surfaces of the photodetector system.

22. (Original) The optical sensor of claim 21, further comprising means for generating a third signal, wherein the third signal is a function of the first and second signal.

23. (Original) The optical sensor of claim 22, wherein the means for generating the third signal comprises means for subtracting the second signal from the first signal.

24. (Original) The optical sensor of claim 21, further comprising a transmitter for transmitting the first and second signal to a sensor reader.

25. (Original) The optical sensor of claim 21, further comprising a housing for housing said determining means, said photodetector and said light source.

26. (Original) The optical sensor of claim 25, wherein the indicator molecules are disposed on an outer surface of the housing.

27. (Original) The optical sensor of claim 21, further comprising means for activating the light source by driving the light source with about 2 milliamps of current.

28-100. Cancelled.